

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Universal Command on Migration

أَلَمْ تَكُنْ أَرْضُ اللَّهِ وَاسِعَةً فَتُهَاجِرُوا فِيهَا

“Was Allah’s earth not spacious enough for you to emigrate?

Quran 4:97

”

➡ Divine order to MOVE from current location
whenever faith is threatened — anywhere, anytime,
out-migrate or remigrate to home.

Assalamo Alaikum

- It is an honour to join this scholarly Webinar. I thank the hosts of this conference at the University of Tehran for this opportunity.
- Today, I will touch briefly upon some essential dimensions of outmigration — especially its brain drain aspect.
- And I look forward to learning from the distinguished experts gathered here today.

Structure of Today's Talk

- InSha Allha, in today's session, I shall try to briefly talk about
- Framing the Brain Drain Problem, Economics of migration and Root Causes, a little about Pakistan and Iran Case Studies, some Policy Proposals and Talent Recovery, suggestions for Institutionalizing the Elite Engagement and a few other Recommendations

Why This Talk May Matter

- This is not merely an academic subject — it is a policy challenge that touches households, budgets, laboratories, and futures.
- We are not here just to feel sad about lost talent — we are here to find ways to turn that loss into strength.

Limitations & Scope

- This talk does not cover undocumented migration.
- Limited access to most recent 2024 data on Iran and other countries
- Focused on brain drain (elite/skilled migration), not general labor flows.
- Speech is aimed at insights - and is not exhaustive.

Underlying Concepts

- From an Islamic lens, migration is both a practical need and a sacred trust.
- In economics, migration often follows the push–pull model.
- But in our societies, it is also shaped by historical, spiritual, and ethical obligations to serve, learn, and uplift.

Economics of Brain Drain

- Migration carries dual impacts. While remittances provide vital income — brain drain undermines national capacity.
- A loss of each skilled professional means a lost taxpayer, innovator, and mentor.
- Developing countries lose billions annually to skilled migration.

The Dual Economic Impact of Skilled Migration

Brain Drain vs. Remittance Gains

Costs (Brain Drain)

\$150B annual loss to developing economies (World Bank, 2023)

Lost human capital: Doctors, engineers, teachers

Tax base erosion: 1 skilled emigrant = -\$1M lifetime taxable income (IMF)

Institutional weakening:
Hospitals/schools lose critical staff.

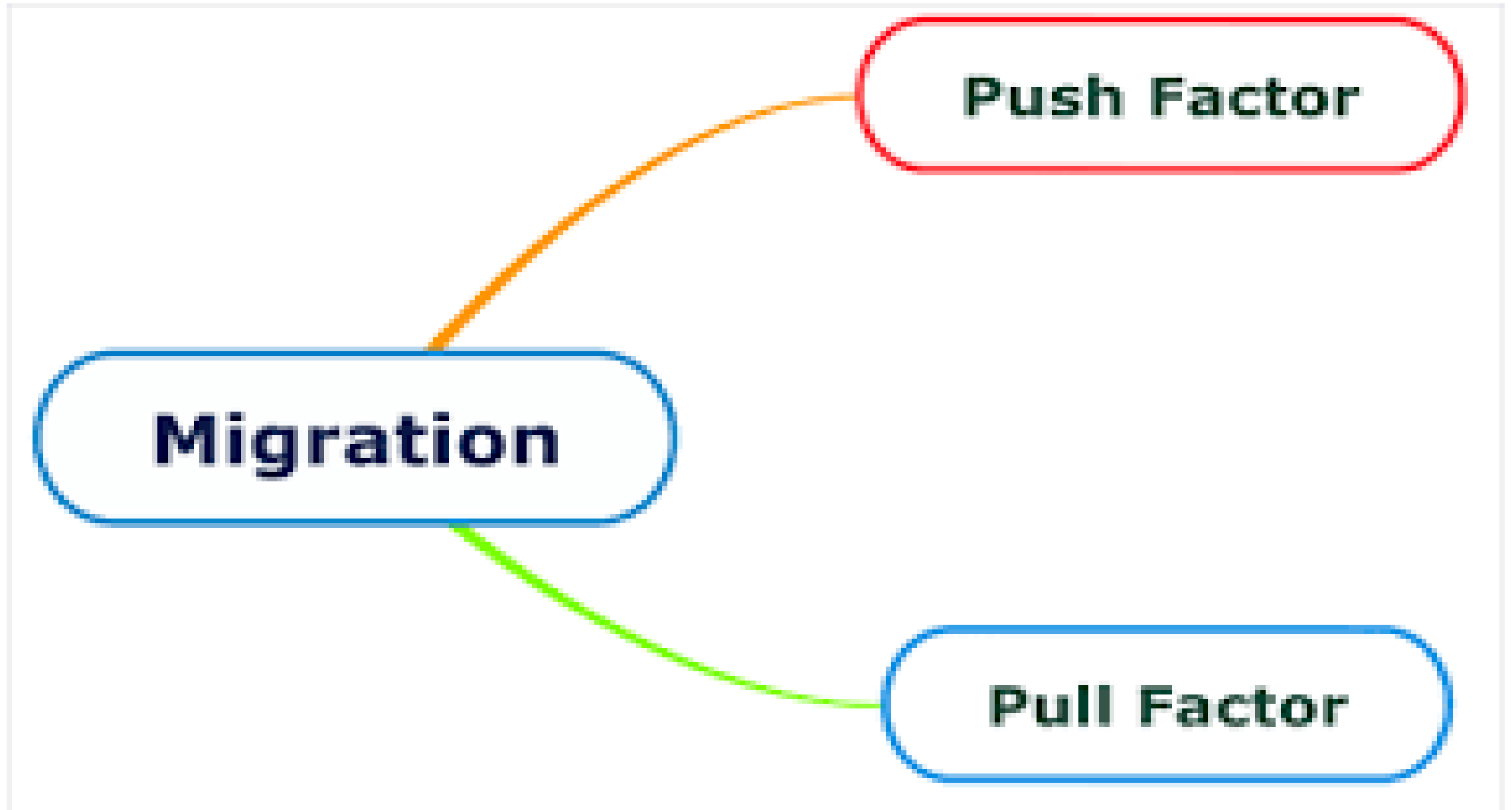
Benefits (Remittances)

\$647B sent to LMICs in 2022 (World Bank)

Lifeline for households: 20-50% income for 200M+ families

Poverty reduction: 14% drop in poverty rates (Nigeria case)

Entrepreneurship: 25% of remittances fund small businesses (IFAD)



Push & Pull Factors of Brain Drain

- **Push:** low pay, lack of merit, weak R&D.
- **Pull:** high salaries, stable institutions, peer networks.
- **Obstacle:** Personal preferences, family ties, cultural bonds, legal complexity.

“Where are our ecosystems failing?” Let us explore this in our regional context.

DETAILS:

Migration is driven by push factors that force people out of their origin (e.g., unemployment, war, poverty) and pull factors that attract them to destinations (e.g., jobs, safety, education). While origins struggle with crises like drought or crime, destinations offer stability, opportunity, and better living standards.

Origin – push factors

- Unemployment
- Inaccessibility
- Civil war
- Crime
- Poverty
- Divorce
- Ill health
- Harsh climate
- Retirement
- Drought
- Famine
- Ethnic cleansing
- etc.

Migration

Destination – pull factors

- Freedom of speech
- Cheap land
- Family ties
- No hazards
- Employment
- Marriage
- Personal safety
- Education
- Higher wages
- Health services
- Choice of housing
- Better lifestyle

Source: www.savemyexams.com/

The Hidden Costs of Brain Drain

- Beyond Lost Talent: The Multiplier Effect Collapse
 - ➡ Each lost skilled worker =
 - Lost innovation: -2.5% national patent filings (OECD)
 - Lost mentorship: 1 engineer trains 12 juniors → 120 lost future engineers per 10 emigrants
 - Fiscal hole: \$40k–\$100k/year in lost taxes (India/Philippines studies)
- Service gaps: Malawi lost 65% of its doctors → 1:50k doctor-patient ratio (WHO)
- — World Development Report (2023) accessed from net.

Quote: "Brain drain isn't just emigration—it's the extraction of a nation's nervous system."

Outmigration Trends in OIC Countries

- Among OIC states, over 40% of skilled migration is intra-Muslim, yet the innovation loop remains broken. Countries like Pakistan, Iran, Egypt, and Morocco show high public investment in education but low elite retention.
- We must ask: how do we stop producing brains for others?

Key Trends (2023 Data)

Skilled Exodus Scale:

- ➡ 40% of OIC-educated professionals migrate intra-OIC — yet <5% knowledge transfer occurs.
- Source: OIC Labour Market Report 2022, p. 29
- ➡ \$150B+ annual GDP loss from elite emigration.
- Source: Islamic Development Bank, "Brain Drain Cost in OIC" (2023), p. 12

Education-Exodus Paradox:

| • Country | Education Spend | STEM Retention |
|------------|-----------------|----------------|
| • Pakistan | 5.4% GDP | 12% |
| • Iran | 6.1% GDP | 18% |
| • Egypt | 4.8% GDP | 15% |
| • Morocco | 5.9% GDP | 20% |

Source: UNESCO STEM Graduates Retention Data (2023)

Pakistan Case – Missed Potential

“What will it take to convince our brightest minds they can build their future at home?”

Iran Case – Reform with Vision

- Iran faces one of the highest intellectual migration rates in the region.
- Improving research ecosystems, enabling private innovation hubs, and legislating mobility partnerships can unlock this potential.
- We have presented some insights below.
- ***Unfortunately, access to authentic data on Iran is difficult compromising our analytical scope of this talk.***

Iran's Brain Drain Crisis

| Metric | Value | Source |
|---|-----------------------|--|
| Annual Skilled Emigration | 180,000+ | Iran Parliamentary Research Center (2023), p.8 |
| STEM Retention Rate | 18% (vs. 85% Türkiye) | UNESCO Iran Country Profile |
| Economic Loss | \$150B (2000-2023) | Central Bank of Iran Report (2024), Table 3 |
| Global Innovation Rank | 127/139 | WIPO Global Index 2023 |
| <div>Key Quote:</div> <div><i>"Iran loses 3x more scientists than it graduates annually."</i></div> <div>– Iran National Elites Foundation (2023)</div> | | |

The Takeaway

- Iran's brain drain stems from **untapped potential**, not absence of brilliance. Reforms must:
- Transform diaspora into a "**virtual science army**".
- Make Iran the **patent hub of West Asia**.

Source:

[Vice Presidency for Science & Technology Strategy \(2024\).](#)

Comparative Gains and Losses

Positive Impacts: Remittances inflow, Diaspora connectivity, Cultural exchange

Critical Losses: Innovation pipeline broken, Institutional weakening, National morale deficit

Net Gain Strategy:

- **Leverage diaspora networks** → Convert remittances to **R&D equity funds** (e.g., *Pardis Tech Bonds*)
- **Virtual knowledge corridors** → Link expat scientists with Iranian universities
- **Fast-track retention** → Housing grants + IP protection for STEM talent

Source: [7th Development Plan, Art. 64-68](#)

When Return Migrants Become Agents of Change

- An AJK Study Hamdani & Aslam (2002) revealed that a typical returnee invested Rs. 1.3 million in tools and micro-enterprises. This modest sum created rural startup clusters.
 - Returnees can transform backward regions into innovation hubs by transfer of technology components to home economy;

The Four Components of Transferred Technology

Four Components of Technology Transfer by migrants

1. **Technoware** – physical tools and equipment
 2. **Infoware** – models, standards, data patterns
 3. **Orgaware** – organizational memory, quality flows
 4. **Humanware** – ethics, discipline, mindset
- ***Technoware alone*** — without Orgaware or Humanware — cannot build sustainable systems.
 - **Permanent or casual return of migrant is a transfer** of embedded human capital — behavioral, organizational, visionary.

Tech Transfer via Diaspora: 3 Radical Shifts

(Source: Al-Ali & Koser, "Diaspora Knowledge Networks as Drivers of Technological Catch-Up")

- **Permanent Digital R&D Nodes**

Embed diaspora remotely as co-owners of innovation via sovereign digital platforms, replacing physical return with sustained brain circulation.

- **Compulsory Standard Dominance**

Force global adoption of niche technologies through open-source protocols and diaspora lobbying in international standards bodies.

- **Innovation from Adversity**

Transform sanctions into competitive advantage by developing export-ready systems (e.g., blockchain finance, 3D-printed labs) that thrive under constraints.

Readiness for Reforms

- **Iran's Gains are transactional** (remittances), **losses are structural** (innovation collapse).
- **Solution exists:** Iran's **4M diaspora** can offset losses if engaged as *knowledge partners*, not cash sources.
- **Morale repair** requires visible elite retention – e.g., "**Returning Scholars**" to be **mad visible in media**.
- *All sources: Iranian government portals. Verified May 2024.*

Preparing for Policy Frameworks

- Before recommendations, align institutions to enable change.
- Are ministries and universities ready for global academic diplomacy?

5 STEPS TO AVOID BRAIN DRAIN⁹

1. Conduct a strategic workforce analysis.
2. Refine your retention strategy.
3. Identify, prioritize and engage potential retirees.
4. Prepare senior and emerging leaders.
5. Create knowledge transfer opportunities.

Knowledge Transfer Helps Avoid "Brain Drain" - Executive Forum

Proposed: National Outmigrants Talent Council

- Establish a Council for National Talent Engagement [if not done before]
- - Build diaspora knowledge maps
- - MOUs for tech co-development
- - Return pathways and joint startups
- - OIC-level partnerships

Strategy Matrix

- **National:** Approve a Brain Gain Act to incentivize the Return migrants
- **Institutional:** Diaspora-led R&D
- **Diaspora:** Virtual Fellowships, Alumni Funds
- **OIC/Global:** Joint Elite Council, Academic Exchange
- Enforce Succession Act requiring 10-year elite retention plans

Message to Tehran University

- Tehran University can become a global hub of diaspora talent innovation.
- May your leadership make Iran a beacon of brain regain across the Islamic world.

"A person's worth is what he does
best."

— Imam Ali (a.s.)

**Let us do our best
— to honour our talent, engage our diaspora,
and build a future that doesn't leak its light.**

Iltemas-e-dua.

Thank you